

REMARKS

Favorable reconsideration of the application is respectfully requested in light of the amendments and remarks herein.

Upon entry of this amendment, claims 1 - 33 will be pending. By this amendment, claims 1, 19, 29, and 33 have been amended. No new matter has been added.

§103 Rejection of Claims 1-3, 5-6, 9-11, 16, 19-22, 24, 29-31 and 33

In Section 2 of the Office Action of May 31, 2006 (hereinafter referred to as "Office Action"), claims 1-3, 5-6, 9-11, 16, 19-22, 24, 29-31 and 33 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kotzin (U.S. Patent No. 2004/0204076) in view of Ishii *et al.* (U.S. Patent Application No. 2005/0085188; hereinafter referred to as "Ishii").

In the Background section of the Specification, it is stated:

When a user of such a multiple interface device wants to communicate with a user of another device, the user typically manually determines what common interface is available, such as by directly talking with the second user. After determining the common interface, the users typically manually configure the devices to establish a connection for communication. To change or end the connection, the users again manually adjust the configuration of the devices. While the users have been able to establish communication, for some users the manual configuration and control may prove difficult.

Background of the Specification, Page 1, lines 12-22.

Therefore, the Background highlights the need to automatically detect and determine a connection for communication.

To achieve the above-stated objective, embodiments of the present invention provide device, method, system, and computer program residing on a tangible storage medium, for

interface negotiation. For example, the method of interface negotiation, as recited in claim 19, includes:

searching for a second device using a default interface of a first device;

establishing a negotiation connection between said first device and said second device using said default interface;

negotiating to select a communication interface using said negotiation connection,

wherein said communication interface is separate interface from said default interface used for providing negotiation connection;

establishing a communication connection using said selected communication interface;

communicating data between said first device and said second device using said communication connection,

wherein said negotiating to select a communication interface includes negotiating to select an appropriate communication interface for communicating said data between said first device and said second device; and

closing said communication connection;

wherein said default interface is a wireless interface.

(emphasis added)

Accordingly, in one aspect of claim 19, the method includes searching for a second device using a default interface of a first device; and negotiating (using the default interface) to select an appropriate communication interface for communicating the data between the first device and the second device, wherein the communication interface is separate interface from the default interface used for providing negotiation connection.

In one example, described in the Specification, a “user of the PDA wants to send a data file to a user of the laptop. Using the user interface of the PDA, the PDA user selects a “send file” operation and a file to send. In response, the PDA activates the Bluetooth components and the PDA searches for other devices available for communication using Bluetooth. The laptop user has previously activated the Bluetooth components of the laptop and so the PDA recognizes the laptop as an available device. The PDA and laptop open a Bluetooth connection to negotiate further communication. The PDA confirms with the PDA user that the laptop is the intended recipient of the selected file. After receiving the confirmation to proceed, the PDA and laptop determine the available interface(s) of the other device through queries sent to the other device. In this case, the PDA and laptop find that each supports Wi-Fi communication. The devices then use the Bluetooth connection to negotiate how to send the file. The PDA recognizes that the size of the file would make it more appropriate to send the file to the laptop across a Wi-Fi connection (because of the improved bandwidth of the Wi-Fi connection compared to a Bluetooth connection) and so the PDA and laptop agree on setting up a Wi-Fi connection.” *Specification, page 3, line 27 to page 4, line 14* (emphasis added).

Thus, the Specification describes searching for a second device using a default interface (e.g., the Bluetooth connection); opening the default interface to negotiate further communication; and negotiating to select an appropriate communication interface (e.g., a Wi-Fi interface for improved bandwidth) for communicating the data between the first device and the second device. The Specification further indicates that the communication interface is separate interface from the default interface used for providing negotiation connection.

By contrast, Kotzin in paragraphs [19] to [21] state that the portable subscriber device “determin[es] whether the external device is available as an interface to the portable subscriber

device; and when available as an interface, establish[es] a wireless link between the portable subscriber device and the external device, where the link will logically and otherwise support the interface. ... Detecting an external device ... includes performing a service discovery process and receiving ... a response from the external device." Thus, Kotzin fails to teach or suggest using a first interface (i.e., a default interface such as Bluetooth) to negotiate further communication using a second interface that is appropriate for exchanging data (such as having high enough bandwidth) such that the first interface is a separate interface from the second interface. The Office Action merely cites Ishii for "transferring data objects between portable devices" which "teaches an interface for communication of data with another device (Section 0024)." Accordingly, Kotzin and Ishii, individually or in combination, fail to teach or suggest all the limitations of claim 19.

Based on the foregoing discussion, claim 19 should be allowable over Kotzin and Ishii. Other independent claims 1, 29, and 33 include similar limitations of establishing a connection to a second device using a default interface of a first device; and negotiating (using the default interface) to select an appropriate communication interface for communicating the data between the first device and the second device, wherein the communication interface is separate interface from the default interface used for providing negotiation connection. Therefore, claims 1, 29, and 33 should also be allowable over Kotzin and Ishii. Since claims 2-3, 5-6, 9-11, 16, 20-22, 24, and 30-31 depend from one of claims 1, 19, and 29, claims 2-3, 5-6, 9-11, 16, 20-22, 24, and 30-31 should also be allowable over Kotzin and Ishii.

Accordingly, it is submitted that the rejection of claims 1-3, 5-6, 9-11, 16, 19-22, 24, 29-31 and 33 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§103 Rejection of Claim 4

In Section 3 of the Office Action, claim 4 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kotzin in view of Ishii and further in view of Grannan (U.S. Patent Application No. 2004/0203387).

Based on the foregoing discussion regarding independent claim 1, and since claim 4 depends from claim 1, claim 4 should be allowable over Kotzin and Ishii. Further, Grannan is merely cited for teaching “a second communication interface supports Wi-Fi”. *Section 3, page 8 of the Office Action*. Therefore, Kotzin, Ishii, and Grannan, individually or in combination, fail to teach or suggest all the limitations of claim 4.

Accordingly, it is submitted that the rejection of claim 4 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§103 Rejection of Claim 7

In Section 4 of the Office Action, claim 7 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kotzin in view of Ishii and further in view of Janik. (U.S. Patent Application No. 2004/0253945).

Based on the foregoing discussion regarding independent claim 1, and since claim 7 depends from claim 1, claim 7 should be allowable over Kotzin and Ishii. Further, Janik is merely cited for teaching that “the second communication interface (LAN) provides a higher data rate than the wireless interface (WAN)”. *Section 4, page 9 of the Office Action*. Therefore, Kotzin, Ishii, and Janik, individually or in combination, fail to teach or suggest all the limitations of claim 7.

Accordingly, it is submitted that the rejection of claim 7 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§103 Rejection of Claim 8

In Section 5 of the Office Action, claim 8 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kotzin in view of Ishii, and further in view of Moon *et al.* (U.S. Patent Application No. 2005/0076054; hereinafter referred to as "Moon").

Based on the foregoing discussion regarding independent claim 1, and since claim 8 depends from claim 1, claim 8 should be allowable over Kotzin and Ishii. Further, Moon is merely cited for teaching that "a second communication interface uses more power than a wireless interface". *Section 5, page 9 of the Office Action.* Therefore, Kotzin, Ishii, and Moon, individually or in combination, fail to teach or suggest all the limitations of claim 8.

Accordingly, it is submitted that the rejection of claim 8 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§103 Rejection of Claims 12, 14-15, 17-18, 25, 27-28 and 32

In Section 6 of the Office Action, claims 12, 14-15, 17-18, 25, 27-28 and 32 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kotzin in view of Ishii, and further in view of Shah *et al.* (U.S. Patent Application No. 2004/0023652; hereinafter referred to as "Shah").

Based on the foregoing discussion regarding independent claims 1, 19, and 29, and since claims 12, 14-15, 17-18, 25, 27-28, and 32 depend from one of claims 1, 19, and 29, claims 12, 14-15, 17-18, 25, 27-28, and 32 should be allowable over Kotzin and Ishii. Further, Shah is

merely cited for teaching that “the negotiation service selects a communication interface without user input”. *Section 6, page 10 of the Office Action.* Therefore, Kotzin, Ishii, and Shar, individually or in combination, fail to teach or suggest all the limitations of claims 12, 14-15, 17-18, 25, 27-28, and 32.

Accordingly, it is submitted that the rejection of claims 12, 14-15, 17-18, 25, 27-28 and 32 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§103 Rejection of Claim 23

In Section 7 of the Office Action, claim 23 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kotzin in view of Ishii, and further in view of Carlton *et al.* (U.S. Patent Application No. 2005/0141450; hereinafter referred to as “Carlton”) and in further view of Moon.

Based on the foregoing discussion regarding independent claim 19, and since claim 23 depends from claim 19, claim 23 should be allowable over Kotzin, Ishii, and Moon. Further, Carlton is merely cited for teaching “a communication criteria that includes data rate”. *Section 7, page 13 of the Office Action.* Therefore, Kotzin, Ishii, Moon, and Carlton, individually or in combination, fail to teach or suggest all the limitations of claim 23.

Accordingly, it is submitted that the rejection of claim 23 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

§103 Rejection of Claim 26

In Section 8 of the Office Action, claim 26 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kotzin in view of Ishii, and further in view of Ahonen *et al.* (U.S. Patent Application No. 2005/0085188; hereinafter referred to as “Ahonen”).

Based on the foregoing discussion regarding independent claim 19, and since claim 26 depends from claim 19, claim 19 should be allowable over Kotzin and Ishii. Further, Ahonen is merely cited for teaching that “the communication mode indicates a type of encryption to use for the communication connection”. *Section 8, page 15 of the Office Action.* Therefore, Kotzin, Ishii, and Moon, individually or in combination, fail to teach or suggest all the limitations of claim 26.

Accordingly, it is submitted that the rejection of claim 26 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

Conclusion

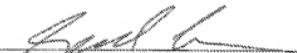
In view of the foregoing, applicants respectfully request reconsideration of claims 1-33 in view of the remarks and submit that all pending claims are presently in condition for allowance.

In the event that additional cooperation in this case may be helpful to complete its prosecution, the Examiner is cordially invited to contact Applicant's representative at the telephone number written below.

Respectfully submitted,
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